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10/052,392	01/23/2002	Hideyuki Nakamura	Q68202	3938

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EXAMINER

SCHILLING, RICHARD L

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 03/20/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

"Office Action Summary"

Application No.

6/052,392

Applicant(s)

Ala Karama et al

Examiner

RL Schilling

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☐ Claim(s) 1-20, 23-28 is/are pending in the application.
Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-20, 23-28 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 8
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in (1) an application for patent, published under Section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention

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was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 and 23-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Japanese Publication 2001/310491 and Japanese Publication 2001/328287. The Japanese publications are the foreign equivalents to the U.S. patent to Wachi et al. and are publications resulting from the publication of the foreign priority applications of Wachi et al. For the purposes of this rejection, Wachi et al. is considered to be a translation of the Japanese publications. Wachi et al. and the instant application are to common assignees as stated in applicants' remarks and thus Wachi et al. is not available for use as a reference under 35 U.S.C. § 103 as to its filing date. The common assignee is requested to state whether or not the U.S. patent to Wachi et al. is essentially a translation of the Japanese publications. The Japanese publications (see particularly Wachi et al. column 3, lines 41-60; column 7, lines 38-45; column 11, lines 1-21; column 12, lines 17-60; column 13, lines 23-51; column 14, lines 15-65; column 18, lines 26-54; Examples 1-5) disclose heat transfer materials and methods for making color proofs wherein the ratio of reflection density to pigmented transfer layer thickness in the working Examples is over 2.5. Image transfer layers and image receiving layers used in the working Examples of the Japanese publications contain the

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same polyvinyl butyral binders as used in the working Examples in applicants' specification and therefore would inherently have the same contact angles in relation to water as set forth in the instant claims. The pigmented transfer layers in the Japanese publications have pigment concentrations and thicknesses as set forth in applicants' specification. The transfer layers in the Japanese publication also contain surfactants and waxes as used in applicants' working Examples. The photo thermal conversion layers in the Japanese publications have preferred optical densities of .1-1.3 and thicknesses of .03-.8 which would include the optical density to thickness ratio set forth in instant claim 20. The requirement for resolution of 2,400 dpi or more when the elements of the instant claims are used in the process is inherent in the elements of Wachi et al. Pages 20 and 31 of applicants' specification disclose that density and definition of transferred image is a function of transfer image layer thickness and density and water contact angles of the image transfer layer and image receiving layer and also of the sensitivity of the photoconversion layer, i.e. the absorption to thickness ratio of the photoconversion layer. Wachi et al. has a highly sensitive photoconversion layer with high absorption per thickness as required by instant claim 20. Also, the resolution of the instant claims depends upon laser exposure conditions. The elements of the Japanese publication would inherently be capable

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of forming resolutions as required by the instant claims since they have transfer layers and photoconversion layers as set forth in applicants' specification for obtaining high resolution images. The Japanese publications do not disclose the image receiving layer size required by the instant claims. However, it would be obvious to one skilled in the art to use the transfer layers and image receiving layers in Wachi et al. to make large images as required by the instant claims. It would be a matter of choice to one skilled in the art as to what size image or color proof^{is} made by the processes of the Japanese publications.

2. Claims 1-20 and 23-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi et al. for the same reasons as set forth in paragraph 3 of the first Office action filed November 29, 2002. Takahashi et al. (see particularly column 10, lines 24-57; column 11, lines 43-50) uses photo thermal conversion layers as thin as possible to increase sensitivity with optical density being preferably .3-1.2 with the preferred thicknesses of .05-.3 for ratios as called for in instant claim 20. Since Takahashi et al. discloses highly sensitive photo thermal conversion layers as set forth in instant claim 20 in applicants' specification, transfer layers and image receiving layers as set forth in applicants' specification, the elements of Takahashi et al. may inherently be used in processes for forming images having resolutions of 2,400 dpi or more as

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required by the instant claims in processes using laser exposure to obtain those required resolutions. Takahashi et al. does not disclose the size of their image receiving layers. However, it would be obvious to one skilled in the art to make images or color proofs of various desired sizes in Takahashi et al. to include large size images or color proofs as required by the instant claims.

3. Claims 1-20 and 23-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 2000/355177 to Takahashi. The Japanese publication is equivalent to the U.S. patent to Takahashi. The Japanese publication is based on the foreign priority document in the U.S. patent to Takahashi. Takahashi has the same assignee as the instant application and is considered to be essentially a translation of the Japanese publication. The assignee is requested to certify whether or not Takahashi (the U.S. patent) is essentially a translation of the Japanese publication. The Japanese publication discloses heat transfer elements and image receiving elements for making color proofs with binder materials for the transfer layers and image receiving layers and with photoconversion layers as required by the instant claims as explained in paragraph 2 above. The elements of the Japanese publication would inherently be capable of being used in processes for obtaining resolutions as required by the instant

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claims and have water contact angles as required by the instant claims as explained in paragraph 2 above. While the Japanese publication does not set forth sizes of its image receiving sheets, it would be obvious to one skilled in the art to make various desired sizes of transfer images or color proofs using the materials of Takahashi including sizes as required by the instant claims.

4. Claims 1-14, 20 and 23-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto et al. or Tsuno et al. The rationale of this rejection is set forth in paragraph 4 of the first Office action filed November 29, 2002. Tsuno et al. (column 19, lines 23-39; Example 2) and Yamamoto et al. (column 21, lines 45-60; Example 6) disclose photo thermal conversion layers of preferably .1-1 micron in thickness with high laser absorber to binder ratios without excess binder to decrease sensitivity. Example 2 in Tsuno et al. and Example 6 in Yamamoto et al. have absorption to thickness ratios of 7 as required by instant claim 20. Pages 20 and 31 of applicants' specification show that resolution depends upon the sensitivity of the light absorbing layer, i.e. light absorption to thickness ratios, and the density and definition of the transferred image is a function of the transfer image layer thickness and density and the water contact angles. Since the transfer layers, image receiving layers and photo thermal conversion layers of Tsuno et

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al. and Yamamoto et al. have the thicknesses, water contact angles and optical absorption or reflection to thickness ratios as set forth in applicants' specification and instant claims, they could inherently be used in a process for forming high resolution images of 2,400 dpi or more as required by the instant claims depending upon the laser exposure process. Tsuno et al. and Yamamoto et al. do not disclose sizes of their image receiving layers. However, it would be obvious to one skilled in the art to use the processes of Tsuno et al. and Yamamoto et al. to form images of various desired sizes including the large sizes required by the instant claims.

5. Applicants' arguments filed February 28, 2003 have been fully considered but they are not deemed to be persuasive. Applicants' argument that the prior art does not disclose deformation functions of 110% or more is unconvincing since the instant claims are silent as to deformation factors. Applicants' argument that the prior art does not disclose the required resolution and image receiving sheet sizes is unconvincing since the elements in the applied prior art would inherently be capable of forming images of high resolutions as required in the intended use statements of the instant claims; and it would be obvious to one skilled in the art to vary the size of the desired image as explained in paragraphs ¹⁻⁴~~1 and 4~~ above. Also, the elements of the applied prior art would inherently be capable of forming various

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deformation fractions depending upon exposure conditions. Deformation is disclosed on page 34 of applicants' specification and occurs during processing and depends upon exposure conditions, i.e. laser exposure less than that required for complete melting.

6. The prior art submitted by applicants in Paper No. 8 has been considered.

7. Any inquiry concerning this communication should be directed to Mr. Schilling at telephone number (703) 308-4403.

RLSchilling:cdc

March 17, 2003

RICHARD L. SCHILLING
PRIMARY EXAMINER
GROUP 1100-1752

